Thursday, 24 October 2002

Dr Parry
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Dear Dr Parry

Review of Initial Metrology Procedure, Draft Report
- EnergyAustralia's Comments on Costs and Benefits

EnergyAustralia appreciates the opportunity to comment on IPART's Review of Initial Metrology Procedure, Draft Report, released on 30 September 2002. EnergyAustralia believes the majority of proposed changes support practical outcomes. This response concentrates on the two areas where the Tribunal has sought further information on costs and benefits to make its decisions: increasing the number of Controlled Load Profiles per profile area allow separate profiles for OP1 and OP2; and embedded networks.

EnergyAustralia believe a separate profile for OP2 can be produce using existing sample meters at no additional cost and that, while difficult to quantify, *net benefits from an additional profile can be conservatively estimated at $3.6 million.*

EnergyAustralia has consistently argued and continues to believe *that the proposals relating to the role of LNSP in embedded networks are impractical* and, while recognising that costs and benefits are not available to assist IPART's decision making, strongly urges that an alternative approach be adopted.

Additional Controlled Load Profile

EnergyAustralia believes that, in the long-term, cost effective interval metering will provide the best price signals in a competitive electricity market. As such EnergyAustralia does not generally support the proliferation of load profiles as an appropriate model for FRC. However, EnergyAustralia is strongly supportive of changes to allow separate profiles for Off Peak 1 and Off Peak 2 controlled loads, as this:

- preserves the existing demand management signals in the market; and
- removes a potential pricing barriers to achieving greenhouse benefits through moving electricity hot water customers to solar and gas solutions.

The Tribunal commented in its draft report that:

> *"At this stage in the review process, the Tribunal has not received sufficient information to allow it to make an informed decision. The Tribunal requests that businesses provide further information about the costs and benefits of introducing a second controlled load profile."*

And further that:

> *"EnergyAustralia is of the view that the benefits exceed the costs, however they have not provided any data to support this claim."*

EnergyAustralia's previous submissions and the round table discussion presented the case for of the additional profile, however not in an explicit cost benefit framework because:

- there are no significant additional sampling costs for separate profiles above the cost of a single profile;
- the additional profile predominantly acts to preserve the existing pre FRC price signals of the Off Peak tariffs;
- the issue had been substantially addressed as part of increasing the cost reflectiveness of Off Peak tariffs as a key element in strategies outlined in EnergyAustralia retail's "*Submission to IPART's mid-term review of retail price regulation"* (sections for which were reproduced in our previous submission on the metrology procedure review); and
- information on the extent of cross subsidies and volumes of customers involved have previously been supplied to IPART and MIG consultants (see attachment 1).

In order to assist the Tribunal with the information is required, the costs and benefits of an additional profile are summarised below.

Additional Controlled Load Profile - Costs

Overall, the costs of introducing an additional profile for EnergyAustralia are not significantly different for the parties involved to those of having a single profile.

EnergyAustralia LNSP Costs

There is no significant additional metering or other LNSP cost anticipated to be required to provide two separate Off Peak profiles.

The principal cost of an additional profile is the installation and processing of data from sample meters. As discussed at the round table, EnergyAustralia are in the process of re-weighing and increasing sample of meters used to for control load profiling to 300 form 210. This change is to address problems with the initial sample and is occurring regardless of the introduction of separate profile's for OP1 and OP2. Further analysis will be conducted when data from the new sample is available to confirm that the increase sample size will allow the production of appropriate OP1 and OP2 profiles at no additional cost above that necessary for the extended sample as a single profile.

It is worth noting that the appropriate sampling requires half-hourly based estimates. As only OP2 meters are in operation during the workday daytime hours any profile needs to include an accurate half-hourly sample of OP2 meters. Thus, even when only one profile is used for all Off Peak consumption, the sample size needs to incorporate a representative sample of OP2 meters to ensure accuracy of daytime consumption estimates. Additional sample meters should not therefore be required to produce separately profiles if the initial sample is structured to be sufficiently large to cover daytime consumption.

Some initial processing cost is required to separate the two meter types but this is similar to that required for normal interval metering in the market and can be incorporated in the cost of refining the current meter sample.

Overall, the incremental EnergyAustralia LNSP cost for the additional OP2 Profile is effectively zero.

NEMMCO costs

There are no significant NEMMCO costs required to provide two separate Off Peak profiles.

NEMMCO representative at the round table discussion confirmed that, consistent with the MSATS design specifications, the NEMMCO systems are able to handle additional profiles without substantial difficulty or cost over that involved in the current single profile.

Customer Costs - Direct and Indirect

There are no significant additional direct customer costs required to provide two separate Off Peak profiles.

There will be no direct costs to customers whose energy is profiled for settlement using the separate OP1 and OP2 profiles. There is no cost to customers whose consumption is sampled to produce of separate OP1 and OP2 profiles. There is a potential for customer supply to be interrupted briefly where sample metering requires a meter upgrade, however this is part of the revision to the initial sample and not specifically associated with splitting of the sample into two profiles.

There are no significant additional indirect customer costs required to provide two separate Off Peak profiles.

Indirectly, customers will pay the ultimate cost of sample metering for profile preparation through network charges. However, this cost is constant where the sample size is constant whether one or two profiles are used. Thus the impact of the second profile on network tariffs is the same as for one profile.

Indirectly, customers on negotiated contracts whose retailers pass on energy price signals from the market will see different prices where the Off Peak profile is separated. Off Peak 1 customers should see lower negotiated price offers and Off Peak 2 customers should see higher price offers. This represents the unwinding of the cross subsidy inherent in using only one profile for both types of Off Peak consumption (see estimate of energy cross subsidy in attachment 1). The net effect of the unwinding of the cross subsidy should be neutral. Where customers are encouraged to change consumption because of the Off Peak price signals the impact has been reflected as a net benefit from more cost reflective pricing.

EnergyAustralia believes that there are no incremental customer costs, direct or indirect from the additional OP2 Profile.

Retailer Costs

Retailers will face a systems cost in catering for two rather than one profile but must already treat OP1 ad OP2 separately for network tariff and billing purposes.

Second tier retailers will be faced with the cost of including provision of an additional profile in their systems for pricing, billing and settlements. This cost will depend upon the flexibility of individual retailers systems that already treat OP1 and OP2 customers separately for network tariff and billing purposes.

Retailer's already require profile management functionality to cover profiles for each of the networks in NSW, including EnergyAustralia's half million Off Peak customers. This

functionality will need to be adjusted to cover separately the approximately 30% of customers on OP2 and the 70% of customers on OP1. In principal, the treatment of the additional profile type is similar to that for existing profiles or an individual interval-metered customer. The cost is therefore not anticipated to be significant, as systems must already both handle multiple profiles, interval metering and treat OP1 and OP2 customers separately.

EnergyAustralia believes that the incremental cost to retailers for an OP2 profile is not significantly different from that required to handle one profile.

Additional Controlled Load Profile - Benefits

The benefits of separate off peak profiles comes in the preservation of the existing network prices signals for demand management in avoided network augmentation Capex and reinforcement of pool price signals for energy usage (including solar and gas alternatives).

EnergyAustralia LNSP Benefits

Using only one profile for settlement of both OP1 and OP2 for 2nd tier retailers effectively blunts the pricing signals incorporated in network tariffs. Separate tariffs will allow pool price signals to reinforce network signals for system augmentation Capex deferral.

OP1 and OP2 tariffs are designed to shift load and hence avoid network augmentation capex. The introduction of two profiles would act to reinforce the OP2 pricing signal for management of peak demand on distribution system as well as, via the peak pool prices, the demand responses to requirements for augmentation of generation assets.

The dollar value of the improved price signal is difficult to estimate but the overall benefit from load control projects in 2001/02 as reported in the *Electricity Network Performance Report, Table 3, Demand Management Projects* was $7.84m at a cost of $1.8m, a benefit cost ratio of over 4 to 1. However, the deferred Capex benefits from OP2 are greater than for OP1 as it encompasses part of the summer afternoon peak load period. In general, a single profile makes the deferred Capex signals from OP2 weaker compared to OP1 and alternatives such as gas or solar. Network capital deferral priced benefits are priced into network tariffs but pricing signals are diminished where the corresponding retail market pricing signals are diluted by the blurring of OP1 and OP2 energy pricing.

The preservation of pricing signals in the separation of Off Peak profiles is consistent with the "better pricing " theme in IPART's recently released "*Inquiry into the Role of Demand Management and Other Options in the Provision of Energy Services , Final Report".* The separate profiles provide similar benefits to those outlined in the report's Recommendation 10:

> "*The Tribunal recommends that the Government review the policy for rolling-out interval meters to residential customers and, if appropriate, accelerate their availability to provide better price signals and increase the capacity for customers and retailers to respond to these signals by modifying consumption."*

Exact measurement of these benefits is difficult, but assuming a third of new controlled load customers each year are on OP2 tariffs and that improved pricing signals results in a shift of a third of these customers to solar or gas heating, the incremental LNSP benefit for the additional OP2 profile would be approximately $200,000 per annum in avoided controlled load costs per year. This is an additional benefit while preserving the current $1.3 million per annum benefit in

deferred network augmentation Capex. The NPV of this benefit over 10 years would be $1.4 million and the associated maintained deferral of augmentation capex $9.4 million.

The potential benefit to the network from separate profiles for OP1 and OP2 is estimated at $1.4 million.

NEMMCO benefits
Additional information may provide some benefits in planning.

Data available from the sample may be useful for planning processes and may contribute to increased flexibility on demand side responses to pool prices and hence provide a constraint on generator bidding power.

The provision of additional data is anticipated to have some but not a major benefit for NEMMCO.

Customer benefits - direct and indirect
Customer's benefits come through more accurate price signals from the removal of cross subsidies. Individual benefits will vary between customers and be dependent on customer's responses to price signals.

Unwinding of energy price cross subsidies in Off Peak tariffs will benefit some customers and disadvantage others, with the net impact on customers largely dependent on customers' behaviour. The extent to which customers can benefit is based upon their willingness and ability to respond to the incentives to alter behaviour that price signals provide. It is worth noting that pricing signals in network OP1 and OP2 tariffs are not affected by profiling but it is how these and energy related charges are passed on into customers prices via retailers that is altered.

The change to profiling should alter the nature and attractiveness of offers that are presented to customers making:

- Negotiated price offers to Off Peak 1 customers lower than would otherwise be the case; and
- Negotiated price offers to Off Peak 2 customers higher than otherwise but alternative offers such as gas and solar energy more competitive.

The issue at stake is that using one profile for Off Peak settlement of energy by 2nd tier retail suppliers does not distinguish between the different consumption patterns of OP1 and OP2 supply.

Customers not on negotiated contacts will not see the impact of the change of profiles as their prices remain set by regulation. While their prices will not change the relative attractiveness of those prices compared to alternatives will be altered. In this respect providing separate profiles for OP1 and OP2 should be seen in conjunction with moves to more closely align regulated Off Peak tariffs with market costs.

Quantification of this impact is difficult to estimate but if 10% of EnergyAustralia's 150,000 OP2 customers were to be on negotiated contracts and the separate OP2 profile were to alter their behaviour so as to reduce consumption by half the amount of the current cross subsidy, there would be a benefit to customers of approximately $300,000 per annum. The NPV of this benefit over 10 years would be approximately $2.2 million.

The potential benefit to the customers from changed behaviour in response to separate profiles for OP1 and OP2 is estimated at $2.2 million.

Retailers benefits

The additional Off Peak profile will provide retailers with the ability to more closely target customers with negotiated contracts (including solar and gas alternatives) based upon their actual characteristics.

Ensuring appropriate cost reflective regulated retail prices for Off Peak is a key factor in promoting customers choice and requires consistency of these signals through specific recognition of OP2 consumption compared to alternatives. This includes not only the pricing of standard and negotiated electricity offers but also the viability of environmentally appropriate alternatives such as gas and solar hot water. This particularly the case where dual fuel offerings are part of a retailers packaging to customers.

Allowing cost reflectivity in the profiles for market settlement of Off Peak tariffs is an a necessary step to ensure that regulated price signals cannot be bypassed through cost smearing under profile settlement arrangements.

Retailers may benefit form improved customer segmentation and targeting under two profiles but this impact has not been quantified.

Anti competitive effects

The draft report states that:

> *"The Tribunal is interested in stakeholders' views about whether an optional approach could potentially have anti-competitive effects."*

EnergyAustralia believes there are no anti-competitive effects in the use of two profiles to cover Off Peak 1and Off Peak 2. All second tier retailers will face the same energy purchase cost which is closer to the actual purchase costs which local retailers face and settle by under differenced. Local retailers are also covered by ETEF pricing arrangements for small customers not on negotiated contracts however these arrangements are separate from the profiling options which relate to market settlements not contract positions.

Summary of Cost/ Benefit Analysis

While the impact of changes are difficult to quantify, based on the EnergyAustralia's estimates the net benefit to customers, either directly or indirectly through lower network capex and hence tariffs, from the introduction of a separate profiles for OP1 and OP2 is $3.6 million.

EMBEDDED NETWORKS - ISSUE

The case for the LNSP not to be the responsible person for embedded network was made in our submission of 18 July 2002 and at the round table forum on 22 August 2002. This was summarised as:

> *"EnergyAustralia believes that while the LNSP has role to play with the parent in embedded networks, including that of RP if required,……, we do not believe that the LNSP has any role to play with children in embedded networks including that of RP.*

The derogation, which makes the LNSP the RP, preserves existing pre-FRC arrangements and promotes simplicity and efficiency. The proposed amendment creates additional obligations on LNSP's and increases complexity.

The Metrology Procedure and/or derogation should make clear the difference between a customer consuming less than 100Mwh connected to an LNSP's network and other customers consuming less than 100Mwh. LNSP should be the RP for only those sites below 100Mwh connected to the LNSP's network."

EnergyAustralia recognises the Tribunal's wish to have firm cost and benefit numbers to assist with their decision in this area and its request *"that LNSPs quantify the estimated costs associated with adopting the role in their submissions to the draft report."*

Unfortunately, one of the difficulties with the embedded network issues is the uncertainty as to the scope, complexity and number of embedded networks that may be involved in 2nd tier customer transfers. This is an unknown area and cannot be readily estimated is because:

- Embedded networks are not visible to LNSP's, other market participants or regulators; and
- to date few children of embedded networks are registered as 2nd tier customers in NSW or elsewhere.

In this respect, the preferred position of EnergyAustralia has been to seek simplicity while preserving both the Government's policy decision to provide a derogation for the LNSP to be the RP for small customers until mid 2004 and maintaining the right of customers in embedded networks to transfer. This seeks to keep responsibilities closest to the parties with the ability, incentive and knowledge to manage those responsibilities.

EnergyAustralia believes the proposed amendments for embedded networks are inappropriate and do not fit comfortably with the market design framework for customer transfers. EnergyAustralia believes that, at a minimum, issues surrounding embedded networks need to be re-examined at the combined NSW and Victorian review of metrology mid 2003.

EnergyAustralia would be pleased to discuss these issues or the comments made in this submission at your convenience. Should you require further information or assistance please feel free to contact Robert Smith on 9269 2133 or myself on 9269 2145.

Yours faithfully,

(GEORGE MALTABAROW)
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EnergyAustralia